



US 20140314147A1

(19) **United States**

(12) **Patent Application Publication**
Rusanovskyy et al.

(10) **Pub. No.: US 2014/0314147 A1**

(43) **Pub. Date: Oct. 23, 2014**

(54) **HARMONIZED INTER-VIEW AND VIEW
SYNTHESIS PREDICTION FOR 3D VIDEO
CODING**

Publication Classification

(51) **Int. Cl.**
H04N 19/597 (2006.01)

(52) **U.S. Cl.**
CPC **H04N 19/00769** (2013.01)
USPC **375/240.12**

(71) Applicant: **Nokia Corporation**, Espoo (FI)

(72) Inventors: **Dmytro Rusanovskyy**, Lempaala (FI);
Miska Matias Hannuksela, Tampere
(FI)

(73) Assignee: **Nokia Corporation**, Espoo (FI)

(21) Appl. No.: **14/247,108**

(22) Filed: **Apr. 7, 2014**

Related U.S. Application Data

(60) Provisional application No. 61/811,240, filed on Apr.
12, 2013.

(57) **ABSTRACT**

There are disclosed various methods, apparatuses and computer program products for video encoding. The type of prediction used for a reference picture index may be signaled in the video bit-stream. The omission of motion vectors from the video bit-stream for a certain image element may also be signaled; signaling may indicate to the decoder that motion vectors used in prediction are to be construed at the decoder. The construction of motion vectors may take place by using disparity information that has been obtained from depth information of the picture being used as a reference.

